



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/498,099	02/04/2000	John G. Waclawsky	CIS99-1714	8317

7590 04/24/2003

CHAPIN & HUANG, L.L.C.
Westborough Office Park
1700 West Park Drive
Westborough, MA 01581

EXAMINER

SHAH, CHIRAG G

ART UNIT	PAPER NUMBER
----------	--------------

2664

DATE MAILED: 04/24/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/498,099

Applicant(s)

WACLAWSKY ET AL.

Examiner

Chirag G Shah

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 5, 8, 9, 11, 14, 15, 18, 19, 21 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Al-Hilali (U.S. Patent No. 6,086,618) in view of Virgile (U.S. Patent No. 6,539,022).

Referring to claims 1, 5, 9, 11, 15, 19 and 21, Al-Hilali discloses in column 8, figure 3 and respective portions of the specification of a server application instrumented with performance counters that measure resource usage of a system. In addition, some form of resource usage monitor 92 is used in conjunction with the server application and system hardware and software in order to measure the utilization or use of various system resource, thus, the resource usage information describing usage of resources within the node is accomplished. Thus, as further discloses in column 12 lines 11-50, the determination of each system resource usage measurement occurs by dividing a total resource usage by the number of a particular transactions that were counted by a counter. Al-Hilali however fails to disclose generating for a data element a parameter that will cause the node of the network to determining that the data element is stale when the node of the network receives the data element; sending the data element to the node of the network and receiving signal from the node of the network including

Art Unit: 2664

an indication that the node has been removed from the network. Virgile discloses in figure 5 and respective portions of the specification of the processor 120 that performs an “aging out” process. The forwarding table with the node is presumed to be stale or inaccurate after a fixed period of time, at each regular interval, the processor flushes or discards the forwarding table in the memory of the node and begins constructing a new table. The updated forwarding table is seen and received, where the signal entry provides an indication that the node(s) of the network has removed the data elements from the network. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Al-Hilali to include the teachings of Virgile in order to reduce network congestion and delay and conserves bandwidth for efficient utilization.

Referring to claims 4, 8, 14, 18 and 24, Al-Hilali discloses in column 8, figure 3 and respective portions of the specification of a server application instrumented with performance counters that measure resource usage of a system. Al-Hilali fails to teach of extracting the resource usage information from the signal and updating contents of the database with the extracted resource usage information and tuning the node of the network based on the updated contents of the database. Virgile teaches in column 10, lines 16-57 of the processor 120 that performing an “aging out” process. Based on a fixed interval signal, e.g. every five seconds, extracts the stale forwarding table and begins constructing new forwarding table. The new forwarding table incorporates all the current resource usage information, enabling the node of executes its operation based on the updated contents of the forwarding table memory database. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings

Art Unit: 2664

of Al-Hilali to include the teaching of Virgile in order to reduce network congestion and speed up transmission efficiency in the network.

3. Claims 2, 6, 10, 12, 16, 20 and 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Al-Hilali in view of Virgile as applied to claims 1, 4, 5, 8, 9, 11, 14, 15, 18, 19, 21 and 24 above, and further in view of Karmi (U.S. Patent No. 6,535,523).

Referring to claims 2, 6, 10, 12, 16, 20 and 22, Al-Hilali in view of Virgile teaches the method wherein the node of the network includes multiple resources and is capable of processing non-stale data elements using different combination of the multiple resources. Al-Hilali in view of Virgile fail to teach the step of acquiring, as the resource usage information, a history which identifies a combination of the multiple resources that processed the data element as a non-stale data element. Karmi teaches of a system of distributing the available capacity of resources with maximum resource utilization among node users. Karmi discloses in figure 4 and respective portions of the specification wherein the control unit receives information related to usage of resources, including history that identifies combination of the multiple resources that processed the data element as a non-stale data element. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Al-Hilali in view of Virgile to include the teachings of Karmi in order to prevent overload and network congestion.

4. Claims 3, 7, 13, 17, and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Al-Hilali in view of Virgile as applied to claims 1, 4, 5, 8, 9, 11, 14, 15, 18, 19, 21 and 24 above, and further in view of Ahearn (U.S. Patent No. 5,926,463).

Referring to claims 3, 7, 13, 17 and 23, Al-Hilali in view of Virgile teach a method of obtaining resource usage information from a node of a network based on a fixed interval signal,

Art Unit: 2664

e.g. every five seconds, exacts the stale forwarding table and begins constructing new forwarding table. Al-Hilali in view of Virgile fail to explicitly teach of the parameter within the data element is a TTL field, wherein the signal is an ICMP error message and wherein the step of receiving includes the step of acquiring as the indication that the node of the network has removed the data element from the network, a notification that the limit to the number of remaining nodes which can process the data element within the network has been reached. Ahearn teaches of managing configurations of a computer network. Ahearn discloses in column 20, lines 65 to column 21, lines 61 of using the BA Traceroute tool, where router operates by sending out a packet to a DA with a TTL set to a small value. ICMP error message indicate the packet could not be delivered because the TTL expired. This process continues, increasing the TTL value until the destination is reached. Note that every router implements the ICMP TTL expired response. Since traceroute is used to test connectivity, once the ICMP comes back with an error message, the step of acquiring takes place in terms of having an indication that the node of the network has removed the data element from the network. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Al-Hilali in view of Virgile to include the teachings of Ahearn in order to receive a confirmation message without a long latency period of status information regarding removed data element from the network.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 305-3988, (for formal communications intended for entry)

Art Unit: 2664

Or:

(703) 305-3988 (for informal or draft communications, please label "Proposed" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).
Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chirag G Shah whose telephone number is 703-305-5639. The examiner can normally be reached on M-F 7:30 to 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 301-305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

cgs
April 15, 2003

